IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: **CARMEN FLOSBACH, *ET AL.***	
APPLICATION NO.: **10/782,098**	GROUP ART UNIT: **1711**
FILED: **FEBRUARY 19, 2004**	EXAMINER: **RABON A. SERGENT**
FOR: **PROCESS FOR PRODUCTION OF POLYURETHANE DI(METH)ACRYLATES**	ATTORNEY DOCKET NO.: **FA 1224 US NA**

DECLARATION UNDER 37 C.F.R. § 132

COMMISSIONER FOR PATENTS
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Sir:

I, Carmen Flosbach, declare that:

I am a citizen of the Federal Republic of Germany and reside at Marpe 41 D-42287 Wuppertal, Federal Republic of Germany.

I am an employee of E.I. du Pont de Nemours and Company ("DuPont").

I received a Ph.D. in organic heterocyclic chemistry from the University of Wuppertal, FRG. I have worked for DuPont from 1990 to the present in the field of resin development.

I am a technical expert in the field of paint coatings, and I am familiar with the above-referenced patent application, as well as the references cited therein.

The following are my remarks:

1. The December 19, 2005, Office Action indicated that Claims 1-10 were rejected under 35 U.S.C. § 103(a) as unpatentable over WO 01/25359 (which corresponds to U.S. Patent 6,825,241), to Blum, *et al.* (*hereinafter* "Blum"), as obvious.

2. Attached hereto are experiments demonstrating unexpected and superior "Acid Resistance" and "Scratch Resistance" results of coatings made from the compositions of the present invention.

3. The experiments were performed under my instructions as follows:
Acid and the scratch resistance of the powder coatings of Examples 1-to 8 and Example 11 of the present application were determined. The respective powder clear coats were sprayed, in a layer thickness of 80µm in each case, onto steel sheets coated with commercially available electro-deposition paint, filler and base coat (flashed off) and melted for 10 min at 140°C (oven temperature). The coating was cured by ultra-violet radiation corresponding to a radiation intensity of 500 mW/cm^2 and a radiation dose of 800 mJ/cm^2.

(i) Acid Resistance Test

50 µl of 36% sulfuric acid were dropped onto the paint films for 30 minutes, at intervals of one minute, at 65°C.

Assessment: Destruction of the film after **X** (0 to 30) minutes.

(ii) Scratch Resistance Test

Scratch resistance was determined in terms of residual gloss after wash scratching. Residual gloss was measured in percent (ratio of initial gloss of the clear coat surface to its gloss after wash scratching; gloss measurement in each case was performed at an angle of illumination of 20°). Wash-scratching was performed using an Amtec Kistler laboratory car wash system [c.f. Th. Klimmasch and Th. Engbert, Entwicklung einer einheitlichen Laborprüfmethode für die Beurteilung der Waschstraßenbeständigkeit von Automobil-Decklacken] according to development of a standard laboratory test

method for evaluating resistance of automotive top coats to car wash systems.[3]

For comparison purposes, the resin according to Example 5 of WO 01/25359 was also prepared. Using this resin, a powder coating was prepared and applied according to the method used for Examples 1-11. Acid and the Scratch resistance were determined as described above. Acceptable Acid Resistance number was greater than 10. Acceptable Scratch Resistance number was greater than 60.

Example No.	Acid Resistance	Scratch Resistance (residual gloss, %)
1	12	72
2	13	68
3	11	71
4	12	69
5	23	64
6	21	70
7 (comparison)	10	75
8 (comparison)	22	60
11	13	82
Example 5 of WO '359 (comparison)	9	75

4. As can be seen from the table, acceptable acid and scratch resistance results were obtained only in case of Examples 1-6 and 11. The comparative examples show either poor acid resistance (values of $\leq$10) or poor scratch resistance (values of $\leq$ 60). Particularly, Example 5 of Blum showed a poor Acid Resistance number of "9".

5. I conclude that the Examiner's position in the December 19, 2005, Office Action, vis-à-vis the obviousness rejection based on 35 U.S.C. § 103(a) is untenable because the coating compositions of the present invention provide with an unexpected and superior result in terms of Acid Resistance and Scratch Resistance of such coatings.

[3] See DFO proceedings 32, pages 59 to 66, technology seminars, proceedings of the seminar on 29-30.4.97 in Cologne, published by Deutsche Forschungsgesellschaft für Oberflächenbehandlung e.V., Adersstraße 94, 40215 Düsseldorf

6. I declare that all statements made herein are either based on my own knowledge and are true, or if based on information and belief are believed to be true. I also declare that all statements were made with knowledge that willful false statements, and the like, are punishable by either fine, or imprisonment, or both under Section 1001 of Title 18 of the United States Code, and any such willful false statements may jeopardize the validity of either the patent application, or any patent issuing thereon.

DATED: February 24th 2006 BY: _____

CARMEN FLOSBACH, PH.D.